

# C E 454: Engineering Design I

## Civil Engineering

Initial course in the capstone design sequence. Individual and group experience in identifying objectives, major activities affecting cost/schedule, and roles of private and public organizations in civil engineering projects; introduction to regional and national building code provisions for access, egress, and structural safety; creativity in the design process and selection of competitive alternatives; preliminary site planning and facility design; preliminary group planning of a significant civil engineering project. Introduction to using computational tools for analysis, design, and visualization. This course will also introduce students to leadership and communication skills necessary for today's civil engineering profession. The importance of career planning and building professional networks in civil engineering will be emphasized by inviting professionals as guest lecturers to share their experiences.

3 Credits

### Prerequisites

- Pre-Requisite: 24 Earned Hours

### One-way corequisites

- [C E 412: Design of Concrete Structures](#)
- [C E 433: Foundation Engineering](#)

### Instruction Type(s)

- Lecture: Lecture for C E 454

### Subject Areas

- [Civil Engineering, General](#)

### Related Areas

- [Civil Engineering, Other](#)
- [Geotechnical and Geoenvironmental Engineering](#)
- [Structural Engineering](#)
- [Transportation and Highway Engineering](#)
- [Water Resources Engineering](#)

